## SUMMING UP THE WORK.

Engineer Hinton Tells What the Senate Irrigation Committe Has Accomplished.

Homes For a Hundred Million People Can be Made in the Arid Region.

Propositions Which the Committe Will Recommend for the Consideration of Congress.

here.

The field session of the senate committee on irrigation and the arid area closed at North Plate, Neb., on the 21st ult. The work of the irrigation survey proper for the present year is also near its termination. Prof. Thompson, chief of that division of the timber, under the supervision, of course, of the government itself. A large appropriation will be asked to push forward the work of the new irrigation survey. With the information it will afford, congress may not legislate wisely, nor can private capital or co-operative enterprise be justified in entering on the work of arid land reclamation upon the large plane which that work will require. the survey, was in Colorado a few days before the committee adjourned, engaged in closing up the work of his field parties. Capt. Dutton, the chief engineer, is at this writing investigating the plans proposed by Col. Lyman Bridges, engineer in charge of the district which includes Nevada and secretary to the Corean embassy, is exizing the waters of the great mountain lakes in regard to matters for the legation. He on the slopes of the Sierra in order to secure western Nevada. During the present year's taking the first steamer to Hong Kong. In work in the irrigation survey about 2,500 graphical division alone. The waters of the great river system of the northwest, also that of the Platte, Rio Grande, Green, Wind and other streams within most of the situation as to the exact relations of the square miles has been surveyed by the topoother streams within mountain regions, have been gauged and otherwise noted by the hydroylogical engineers. No work has been done in Arizona, Southern Nevada, Western Colorado, or in the eastern parts of Oregon and Washington. Engineer Wilson, of Montana, has confined his observations and work largely to the valley of the Yellowstone, that of the Upper Missouri and the Judith basin. Engineer Foote in Idaho has had all he could do in his reconnoismost in the great Spake valley regions and retired Chinese minister was on the very ance in the great Snake valley regions and the table-lands connected therewith. The work of Engineers Nettleton in the Rocky Mountains and Hamilton Hall in the Cali-fornia division has been one almost wholly of supervision. On the east side of the continental ranges, the abundant waters that supply and make up the Missouri and Mississippi all take their rise and flow through Montana. There is enough water in them to easily reclaim 40,000,000 acres of fertile land, now entirely idle. The stream beds flow from 250 to 500 feet below the surface of the great table lands. There are large valley areas also, but these areas will face of the great table lands. There are large valley areas also, but these areas will never prove as good farming land as that of

irrigation. Bozeman is the center of the largest irrigated grain section. Missoula, in the extreme northwest portion of the state, promises to be the best orchard and

engineering, an abundance of water for the reclaiming of at least 12,000,000 acres, A portion of this belongs, like that of the Dakotas, to what the engineers term the sub-humid area; that is, the region in which the rainfall is much larger than in the arid section, but is not quite enough for the security of agriculture. Turning to southwest Arizona, Mexico and the Rio Grande section of Texas, and the conditions of Southton of Texas, and the conditions of Southern California are reproduced, as to fertility of soil and warmth of climate. At Yuma, on the Colorado river, where the rainfall is but three inches per year, the committee held one of its best sessions.

Arriving at sunrise, testimony was taken before breakfast in the open. air and sun amid the luxuriant evidences of the rich plant life of the region. The area cultivated is very small, but its results are most prolific. All the fruits of the semitropical region, with cotton, sugar, rice, etc., were shown to the committee. Canal projects are under way which will irrigate some 300,000 acres. This section is regarded as the wildest and wierdest portion of our lieve me. I became alarmed and at the as the wildest and wierdest portion of our national domain, yet it promises to become one of the most fertile and attractive. Another session was held in Phoenix, in the Salt river valley, where some 26,000 acres are under water, about 25,000 acres being cultivated. The price of land in that valley ranges from \$25 to \$150 per acre. Water rights are sold by the Arizona Canal company at \$1,250 each. The cost of the canal system has been \$600,000, and the water right covers eighty acres. The company have netted from that source alone about \$220,000; their actual income from the \$220,000; their actual income from the rent of the water is above \$125,000, making a net profit annually of at least 14 per cent. In the present position of the water corporation and land owners, what is termed a permanent water right, is after all but a royalty on the privilege of paying an actual rental of water on their land. This question of water control is one that disturbs all the irrigators from Mon-tana to Arizona and from Colorado to California. Agitation in the latter state has been carried so far that a large body of farmers demand that the state shall purchase and own the main irrigation ditches and therewith convey water for farming

The act passed last October, which irrigation reservoirs and dis-tricts are to be withdrawn from settlement, has caused great antagonism among the gentlemen who are haugry for large areas of our public lands. The cattle ranch regions ; visited by the senate committee illustrated this propensity. Montana, Wyo-

gards the future of agriculture the region from the ninety-eighth meridian west to the Pacific ocean, if water can be obtained, will be the very best part of the United States. It is most probable also that they will report that water can be obtained in sufficiency only by an extension of will report that water can be obtained in sufficiency only by an extensive system of storage and distribution, made extensive enough to reclaim land to make in the near future homes for at least 50,000,000 people. Some of those connected with the compart

the sites of all the great storage basins hat they may be selected by the engineers

of the irrigating survey.

2. That the area of the future homesteads to be granted settlers within the arid region should be reduced probably to forty acres each; the difference between that amount and the 160 acres granted elsewhere to be made up in privileges than can be held in the use of the pastoral and tim-ber lands. It is also probable that an actual minimum of cultivation will be required as well as residence in order to secure home-

3. The committee will doubtless report that all the evidence that has been taken shows that the equities of the situation require for the security of the present and future of the irrigating regions that the general government shall in every proper way favor and sustain the policy of indissolubly linking the water with the land. So that those who occupy and till the arid soil may also own and control the water that makes it fertile.

The committee will without doubt pro-

Col. R. J. Hinton, engineer to the senate committee on irrigation, contributes to the Chicago Inter Ocean an interesting summary of the committee's work and a forecast of probable legislation on this all important subject. We give such portions of the article as will have peculiar interest berg. The committee will without doubt pro-

### COREA AND THE CHINESE.

No Ill Feeling Between These Countries

Says Dr. Allen. Washington, Oct. 9.-Dr. Allen, foreign eastern California, for the purpose of util- pected to start on a business trip to Corea will stop in Ohio a few days to see his family, and will then proceed to San Francisco, conversation about the relations existing between the Corean and Chinese legations retired Chinese minister was on the very best of terms with our legation, and there has not been any mention lately of any objection to Corea having a representative there. As to the new minister and Prince

It is astonishing how rapidly the feeble the plains above. Good engineering however, will be required to so impound the waters of these streams as to enable them to be turned from their beds for the irrigation of the table lands.

In Montana at the present moment only about 650,000 acres are under cultivation by irrigation. By general is the center of the

### Races at Spokane Falls.

For the races at Spokane Falls, Oct. 8th to 12th, inclusive, the Northern Pacific railsmall grain region. Irrigation, however, only exists in Montana in its crudest form, and the farmers who use it have not got over their old school prejudice against the same.

In east Washington the Columbia river valley and its tributaries offer, with skillful and including Oct. 14th. A. D. Engar, General Agent, Helena, Mont.

> Cure for Piles. Itching piles are known by moisture like perspiration, producing a very disagreeable itching after getting warm. This form, as well as blind, bleeding and protruding piles, yield at once to the application of Dr. Bo sanko's Pile Remedy, which acts directly

## Home Testimony.

HELENA, Oct. 7, 1887. I was suffering from an unusally bad cough, my lungs were sore and congested, and I consulted one of the best physicians suggestion of a friend purchased a bottle of Aker's English Remedy for coughs, and after taking it according to directions was completely cured. I therefore cheerfully recommend it.

JACOB SWITZER I had a racking cough and inflamed throat and bought a bottle of Acker's English Remedy upon the recommendation of a friend, and was entirely cured by it. I consider it a never failing remedy for a cough.

Acker's English presentations are for a sale. Acker's English preparations are for sale in Helena only by E. S. Hale & Co.

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Chamberlain's Colie, Cholers and Diarrhos Remedy

This medicine can always be depended upon, not only in the milder forms of summing. Arizona are especially aroused over the idea that a section of land was no longer at the disposal of any one who could swear fast enough to make the general land office believe that a well or a ditch will irrigate 640 acres of land.

In closing let me say briefly that I have no doubt the senate committee will report that in all elements of fertility and as regards the future of agriculture the region

What in the world is the reason you will cough and keep coughing and still keep trying inferior medicines when Beggs' Cherry

Some of those connected with the committee, myself included, believe this number can be doubled, and that it is possible and probable also to make homes in the arid west for at least 100,000,000 more souls.

From the observations made and the evidence taken, as well as opinions expressed the committee of the co by members of the committee, it is more than probable that the committee will report to the senate propositions favoring:

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terest in 320 acres of coal land by a railroad near Butte, containing three distinct veins of good coal, respectively 2 feet, 4 feet and 12 feet in thick-

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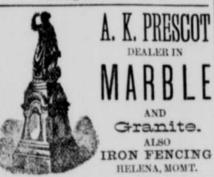
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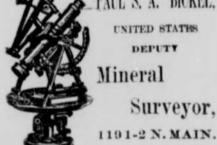
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